Barristers & Solicitors-Patent & Trade-mark Agents

McCarthy Tétrault



January 17, 2007

VIA COURIER

United States Patent and Trademark Office Customer Service Window Office of Patent Publication Attention: Certificates of Correction Branch Randolph Building 401 Dulany Street Alexandria, Virginia 22314 U.S.A.

Dear Commissioner for Patents:

RE:

U.S. Patent No. 7,099,271

Inventor(s): Larry Friesen, et al.

For:

System For Providing Fabric Activity Switch Control In A

Communications System

Docket No.: 123081-339750

Please find attached the following documents for filing with respect to the above patent:

1. Transmittal Form (1 sheet);

- 3. Request for Certificate of Correction (9 pages); and,
- 4. Certificate of Correction (1 sheet).

The Commissioner is hereby authorized to charge all necessary fees and to credit Deposit Account No. 150633 in the name of McCarthy Tétrault LLP (Customer No. 27,155).

Please date stamp and return to us the enclosed "Return Receipt Postcard". Thank you very much for your assistance in this matter.

Yours very truly,

McCarthy Tétrault LLP

Joseph/Conneely

JC/tf /Enclosure McCarthy Tétrault LLP

Box 48, Suite 4700

Toronto Dominion Bank Tower

Toronto ON M5K 1E6

Canada

Telephone: 416 362-1812 Facsimile: 416 868-0673

mccarthy.ca

Joseph Conneely

416-601-8179 Direct: Direct Fax: 416-868-0673

E-Mail:

jconneely@mccarthy.ca

cofe

Of Correction

JAN 1 8 2007 PTO/SB/21 (09-06) Approved for use through 03/31/2007. OMB 0551-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE are required to respond to a collection of information unless it displays a valid OMB control number. duction Act of 1995, no persons Application Number 10/015,576 Filing Date TRANSMITTAL DECEMBER 17, 2001 First Named Inventor **FORM** LARRY FRIESEN Art Unit **Examiner Name** MIN JUNG (to be used for all correspondence after initial filing)

Total Number of	Pages in This Submission	11 Attorney Docket Number	123081-339	9750					
ENCLOSURES (Check all that apply)									
Amendme And A Extension Express A Information Certified Documer Reply to Incomple	fter Final ffidavits/declaration(s) n of Time Request Abandonment Request on Disclosure Statement Copy of Priority	Drawing(s) Licensing-related Papers Petition Petition to Convert to a Provisional Application Power of Attorney, Revocation Change of Correspondence Terminal Disclaimer Request for Refund CD, Number of CD(s) Landscape Table on Comparison.	Address	Appeal of Appeal (Appeal (Appeal Status I) Other E below):	inclosure(s) (please Identify OR CERTIFICATE OF				
SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT									
Firm Name MCCARTHY TETRAULT LLP (CUST. NO. 27,155)									
Signature (mnoel									
Printed name JOSEPH CONNEELY									
Date JANUARY 17, 2007			Reg. No.	54,883					
CERTIFICATE OF TRANSMISSION/MAILING I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on									
the date shown to Signature	pelow:								
Typed or printed	name			Date					

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

(Also Form PTO-1050)

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

OEKTH IOTHE OF GOTHLEGITOR									
	Page _	1_	of1						
PATENT NO. : 7,099,271	_								
APPLICATION NO.: 10/015,576									
ISSUE DATE : AUGUST 29, 2006				İ					
INVENTOR(S) LARRY FRIESEN, ET AL.		•							
			ъ.						
It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:									
	-								
Claim 1, column 23, line 31: Insert a comma , after the word which									
			*	ł					
				.					
	•								

MAILING ADDRESS OF SENDER (Please do not use customer number below):

McCarthy Tetrault LLP, Box 48, Suite 4700, 66 Wellington Street West, Toronto, Ontario, Canada M5K 1E6 (File Number 123081-339750)

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



IN THE UNITED STATES PATENT & TRADEMARK OFFICE

Patent No.

7,099,271

Issued

August 29, 2006

Title

SYSTEM FOR PROVIDING FABRIC ACTIVITY SWITCH

CONTROL IN A COMMUNICATIONS SYSTEM

Applicant

Larry Friesen, et al.

Application No.

10/015,576

Filed

December 17, 2001

Confirmation No.

6264

Art Unit

2663

Examiner

Docket No.

123081-339750

Min Jung

Customer No.

27,155

Commissioner of Patents

Office of Patent Publication

Attention: Certificates of Correction Branch

P.O. Box 1450

Alexandria, V.A. 22313-1450

REQUEST FOR CERTIFICATE OF CORRECTION

Sir:

The Applicant respectfully requests the issue of a Certificate of Correction for the above noted patent.

The error for which correction is requested was made by the Patent Office.

The requested correction is as follows:

Claim 1, column 23, line 31: Insert a comma -- , -- after the word -- which --.

Please find enclosed a completed Form PTO/SB/44 ("Certificate of Correction") indicating the above correction.

The above correction is fully supported by Applicant's "Amendment" of January 5, 2006, a copy of which is enclosed for reference. In particular, with respect to the error, please see the listing for Claim 1 on page 2.

If necessary, the Commissioner is hereby authorized to charge all necessary fees and to credit Deposit Account No. 150633 in the name of McCarthy Tétrault LLP (Customer No. 27,155).

No new matter has been entered by the above corrections.

Respectfully submitted,

McCarthy Tétrault LLP

Date: January 17, 2007

Ву

Jyseph P. Conneely Registration No. 54,883

Telephone: (416) 601-8179

Fax: (416) 868-0673

McCarthy Tétrault LLP Box 48, Suite 4700 66 Wellington Street West Toronto Dominion Bank Tower Toronto, Ontario, Canada M5K 1E6

Enclosures

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

Application. No.

10/015,576

Title

SYSTEM FOR PROVIDING FABRIC ACTIVITY SWITCH

CONTROL IN A COMMUNICATIONS SYSTEM

Applicant

Larry Friesen et al.

Filed

December 17, 2001

Confirmation No.

6264

Art Unit

2663

Examiner

Min Jung

Docket No.

123081-339750

Customer No.

27,155

Commissioner of Patents

P.O. Box 1450

Alexandria, V.A. 22313-1450

AMENDMENT

Sir:

This is in response to the Office Action mailed October 18, 2005.

Please amend the above-identified application as follows:

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper; and,

Remarks/Arguments begin on page 6 of this paper.

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A system for controlling switching fabrics in a communications switch platform having a data plane for processing data, including an active fabric having an ingress and an egress and establishing a first datapath, a redundant fabric having an ingress and an egress and establishing a second datapath, and a fabric switch selecting one of said fabrics to a system output, comprising:

a control plane for monitoring said processing of data, including: (i) a plurality of monitors operatively connected to monitor the status of elements in said active and redundant fabrics in the data plane; and (ii) a first fabric activity switch circuit adapted to determine whether said fault occurred in said active fabric, and if so, to generate a fabric activity switch signal directed to said fabric switch to switch to said redundant fabric, whereby, the control plane receives data plane fabric status inputs from the data plane and effects control over said fabric switch, but otherwise operates independently of said data plane : a redundant fabric activity switch circuit which, in the event of failure of said first fabric activity switch circuit, is adapted to determine whether said fault occurred in said active fabric in the data plane, and if so, to generate a fabric activity switch signal directed to said fabric switch, whereby, redundant control is provided over said fabric switch; a plurality of redundant monitors operatively connected to monitor the status of said first fabric and said redundant fabric for a fault, whereby, redundant reporting paths are provided in the control plane for the status of said first and said redundant fabrics; and, wherein said plurality of monitors and redundant monitors comprise a pair of shelf controllers per shelf, and each monitor and each redundant monitor of each pair of shelf controllers is connected by respective control service links to a first inter-shelf I/O interface card and a second inter-shelf I/O interface card, respectively, whereby shelf status information is provided across shelves to redundant I/O interfaces .

2-4. (Cancelled)

- 5. (Currently Amended) The system in claim 1 -4 , further comprising first and second intershelf management cards, each of said first and second inter-shelf management cards being cross-connected to each of said first and second inter-shelf I/O interface cards, whereby, multiple redundant paths are provided between said pairs of shelf controllers and said inter-shelf management cards.
- 6. (Original) The system in claim 5, further comprising first and second fabric activity switch control cards, each of said first and second fabric activity switch control cards being cross-connected to each of said first and second inter-shelf management cards, whereby, multiple redundant paths are provided between said pairs of shelf controllers and said fabric activity switch control cards.
- 7. (Original) The system in claim 6, further comprising a fabric override input adapted to generate a fabric activity switch signal directed to said fabric switch in the data plane, whereby, the selection of a fabric by the fabric activity switch circuit may be overridden.
- 8. (Original) The system in claim 1, further comprising a fabric override input adapted to generate a fabric activity switch signal directed to said fabric switch in the data plane, whereby, the selection of a fabric by the fabric activity switch circuit may be overridden.
- 9. (Currently Amended) The system in claim $\underline{5}$ $\underline{-2}$, further comprising a fabric override input adapted to generate a fabric activity switch signal directed to said fabric switch in the data plane, whereby, the selection of a fabric by the fabric activity switch circuit may be overridden.
- 10. (Cancelled)

11. (New) A system for controlling switching fabrics in a communications switch including a plurality of input/output ("I/O") shelves interfacing with a first switching fabric and a second switching fabric, for selecting one of said first and second fabrics as an active switching fabric, comprising:

an I/O monitor provided in an access interface between each I/O shelf and the first and second switching fabrics, respectively, for generating respective first and second fabric status signals indicative of a fault on the access interface;

means in the first and second fabrics for generating respective first and second switching fabric status signals, indicative of a fault in one of the first and second switching fabrics, respectively; and,

a fabric activity switch circuit for selecting the first switching fabric as the active switching fabric if a fault is detected in the second switching fabric based on the first and second fabric status signals and the first and second switching fabric status signals.

- 12. (New) The system of claim 11 further comprising an interface, coupled to the fabric activity switch circuit, for receiving at least one of an override signal for overriding the selecting of the active switching fabric and a select signal for directing the selecting of the active switching fabric.
- 13. (New) The system of claim 12 wherein at least one of the override and select signals are provided by a control terminal.
- 14. (New) The system of claim 11 wherein the selecting of the active switching fabric occurs in under 60 milliseconds.
- 15. (New) A fabric activity switch circuit for a communications switch, the communications switch including at least one input/output ("I/O") device coupled to each of first and second switching fabrics, the circuit comprising:

a first interface for receiving first and second I/O status signals from the at least one I/O device, the first and second I/O status signals being indicative of respective faults in the first and second switching fabrics and being generated by respective monitors provided in the at least one I/O device;

a second interface for receiving first and second fabric status signals from the first and second switching fabrics, respectively, the first and second fabric status signals being indicative of respective faults in the first and second switching fabrics and being generated by respective monitors provided in the first and second switching fabrics; gates coupled to the first and second interfaces for generating an output signal for selecting the first switching fabric as an active switching fabric if a combination of the second I/O and fabric status signals indicate a fault in the second switching fabric and for selecting the second switching fabric as the active switching fabric if a combination of the first I/O and

16. (New) The fabric activity switch circuit of claim 15 further comprising a third interface coupled to the gates for transmitting the output signal to a fabric switch for switching between the first and second switching fabrics.

fabric status signals indicate a fault in the first switching fabric.

- 17. (New) The fabric activity switch circuit of claim 16 further comprising redundant gates and redundant first, second, and third interfaces to improve reliability.
- 18. (New) The fabric activity switch circuit of claim 15 further comprising a fourth interface, coupled to the gates, for receiving at least one of an override signal for overriding the selecting of the active switching fabric and a select signal for directing the selecting of the active switching fabric.
- 19. (New) The fabric activity switch circuit of claim 18 wherein at least one of the override and select signals are provided by a control terminal.
- 20. (New) The fabric activity switch circuit of claim 15 wherein the switching between the first and second switching fabrics occurs in under 60 milliseconds.

REMARKS/ARGUMENTS

Claim 1 stands rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,850,704 to Dave ("Dave"). In addition, Claims 2-3 and 8-10 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Dave in view of U.S. Patent Application Publication No. 2002/0099972 by Walsh et al. ("Walsh").

The Examiner has objected to Claims 4-7 as being dependent upon a rejected base claim, but would allow these claims if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The Application thanks the Examiner accordingly.

In view of the Examiner's comments with respect to Claims 4-7, Claim 1 has been amended to include the limitations of Claims 2-4, as suggested by the Examiner. Claims 2-4 have been cancelled accordingly. In addition, Claims 5 and 9 have been amended to make them depend from amended Claims 1 and 5, respectively, rather than from cancelled Claims 4 and 2, respectively. Furthermore, Claim 10 has been cancelled as amendment would have made it equivalent to Claims 8 or 9. Having amended Claim 1 to include the limitations of Claims 2-4, the Applicant believes that Claim 1 is patentable. In addition, the Applicant believes that Claims 5-9, being dependent on amended Claim 1, and adding patentable features thereto, are also patentable.

In addition, new Claims 11-20 have been added with a view to better defining the invention. New Claims 11-14 are directed towards a system for controlling switching fabrics in a communications switch while new Claims 15-20 are directed towards a fabric activity switch circuit for a communications switch. The Applicant believes that these new claims are fully supported by the specification (e.g., FIGS. 3, 12B, and paragraphs 0064-0100).

Please note that Claims 2-4 and 10 have been cancelled without prejudice in order to expedite prosecution of this application. The Applicant reserves the right to pursue these cancelled claims in a continuing application or otherwise.

No new matter has been entered by these amendments.

The Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

McCarthy Tétrault LLP

Date: January 5, 2006

Joseph P. Conneely

Registration No. 54,883

Telephone: (416) 601-8179

Fax: (416) 868-0673

McCarthy Tétrault LLP Box 48, Suite 4700 66 Wellington Street West Toronto Dominion Bank Tower Toronto, Ontario, Canada M5K 1E6